

Patent claims

*1ac-A8*

1. Apparatus for injection-compression molding molded parts, in particular plastic molded parts, comprising a mold with at least two plates, the opposing end faces of which, as the mold parting plane for opening and closing the mold, have the negative form of the molded part to be produced, comprising means for introducing the molding composition and comprising means for moving at least one plate, characterized in that the plate (2, 2') is connected to a threaded screw drive (7), [lacuna] in that the threaded screw drive is driven via a gear mechanism (12) by a controlled drive (13, 14) in such a way that the plate (2, 2') can be positioned.
2. Apparatus for injection-compression molding according to Claim 1, characterized in that the plate (2, 2') is connected to a plurality of threaded screw drives (7).
- 20 3. Apparatus for injection-compression molding according to Claims 1 and 2, characterized in that a plurality of plates (2, 2') are connected to threaded screw drives (7).
- 25 4. Apparatus for injection-compression molding according to at least one of Claims 1 to 3, characterized in that the spindle nut (10) of the threaded screw drive (7) is connected to the plate (2, 2').
- 30 5. Apparatus for injection-compression molding according to at least one of Claims 1 to 3, characterized in that the threaded spindle (6) of the threaded screw drive (7) is connected to the plate (2, 2').
- 35 6. Apparatus for injection-compression molding according to at least one of Claims 1 to 5, characterized in that mold inserts (4), which have the negative form of the molded part to be produced, are arranged in the plates (2, 2') and in that at least one

threaded screw drive (7) is connected to at least one mold insert (4).

7. Apparatus for injection-compression molding according to Claims 1 to 5, characterized in that the threaded screw drive (7) is connected to cores or dies arranged in the plate (2, 2').

8. Apparatus for injection-compression molding according to at least one of Claims 1 to 7, characterized in that the plates (2, 2') have heating elements (17).

9. Apparatus for injection-compression molding according to at least one of Claims 1 to 7, characterized in that the gear mechanism is a planetary gear mechanism (12).

10. Apparatus for injection-compression molding according to at least one of Claims 1 to 9, characterized in that at least one ejector (20) is arranged in the threaded screw drive (7).

11. Method for injection-compression molding with a mold in which at least one of the plates, having the negative form of the molded part to be produced, is moved for opening and closing the mold and for compressing the molding composition injected into these plates, characterized in that the movement [sic] at least one plate is controlled on the basis of a prescribed program or in dependence on at least one process parameter.

12. Method according to Claim 11, characterized in that the positioning of the plate is controlled in dependence on the pressure present in the mold.

13. Method according to Claim 11, characterized in that the positioning of the plate is controlled in dependence on the power consumption of the motor driving the threaded screw drive.

14. Method according to Claim 11, characterized in that the positioning of the plate is controlled in dependence on the force of the threaded screw drive.

15. Method according to at least one of Claims 11 to 14, characterized in that the plate is positioned step by step.

16. Method according to Claim 15, characterized in  
5 that the plate is positioned in steps down to  $< 1 \mu\text{m}$ .